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Paul Rosasco, P.E.  
Engineering Management Support, Inc.  
7720 West Jefferson Avenue, Suite 406  
Lakewood, Colorado 80235

0714

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Superfund

0001

Dear Mr. Rosasco:

Re: Approval with Request for Modifications of Final Supplemental Feasibility Study

The U.S. Environmental Protection Agency has reviewed the Final Supplemental Feasibility Study received on October 3, 2011. Pursuant to paragraph 40 of section VIII (Work to be Performed) of Administrative Order on Consent, VII-93-0005, as amended, and the recaptioned Administrative Settlement Agreement and Order on Consent, the EPA hereby approves the Final Supplemental Feasibility Study with request that the modifications identified below be made and submitted as changed pages to the subject document.

1. Section 1.1, page 16: Use the exact language from pages xi and xii in the Record of Decision instead of items 1 through 5.

2. Section 1.1, page 17: In the first paragraph on this page, include the actual language for the OSRTI "Performance Standards" memorandum as follows:

- The proposed cap should meet UMTRCA guidance for a 1,000-year design period including an additional thickness to prevent radiation emissions.
- Air monitoring stations for radioactive materials should be installed at both on-site and off-site locations.
- Groundwater monitoring should be implemented at the waste management unit boundary and also at off-site locations. The groundwater monitoring program needs to be designed so that it can be determined whether contaminants from the landfill have migrated across the waste management unit boundary in concentrations that exceed drinking water Maximum Contaminant Levels. The groundwater monitoring program needs to measure for both contaminants that have historically been detected in concentrations above MCLs (e.g., benzene, chlorobenzene, dissolved lead, total lead, dissolved arsenic, total lead, dissolved radium and total radium) and broader indicators of contamination (e.g., redox potential, alkalinity, carbonates, pH and sulfates/sulfides).

Site ID:

0714

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- Flood control measures at the site should meet or exceed design standards for a 500-year storm event under the assumption that the existing levee system is breached.

In addition, section 5.2 should show how each of these additions is now incorporated into the design.

3. Section 1.1, page 17: In the first paragraph, delete the phrase "...which would be incorporated into the remedial design phase of implementation of that remedy." It is likely that a decision document will be appropriate for all significant and/or fundamental changes.
4. Section 2.1.4, last paragraph, page 26: Change the fourth sentence to read "An agreement was reached between the St. Louis Airport Authority and Bridgeton Landfill, LLC, whereby the Bridgeton Sanitary Landfill ceased disposal of municipal waste, organic waste and putrescible waste in 2005 in order to reduce potential bird impacts to aircraft operations."
5. Section 2.3, second paragraph, page 40: This section states that radon flux from Areas 1 and 2 measured during the Remedial Investigation did not exceed the 20 pCi/m<sup>2</sup>s UMTRCA criterion; however, the third paragraph of section 3.1.1.3 states that the radon flux did slightly exceed this value. These sections must be reconciled.
6. Sections 3.1.2.10 and 3.1.2.11, pages 61-65: These two sections state that the September 20, 2010, letter from the St. Louis Airport Authority to the EPA and the minutes of the September 7, 2010, meeting between the St. Louis Airport Authority and the EPA are included in Appendix A; however, these documents are missing from Appendix A and must be included.
7. Section 3.1.2.11, fifth paragraph, page 64: The text of this section, beginning with "On September 7, 2010..." should be replaced with the following, more concise text:

On September 7, 2010, representatives of Bridgeton Landfill, LLC, and the EPA met with representatives of the St. Louis Airport Authority and the U.S. Department of Agriculture to follow up on concerns raised that the Restrictive Covenant entered into between landfill owners and STLAA would prohibit construction of the "on-site cell" evaluated as part of the SFS. The EPA provided a summary of the alternatives considered in the SFS. STLAA and USDA stated that an excavation remedy would create risks that they could not even calculate, and that monitoring and management of risks created by wildlife would be impossible. STLAA noted that under the ROD-selected remedy, the site will present no risk to human health or the environment and said that creating new risks by implementing an excavation remedy did not seem advisable.

STLAA further stated that an excavation remedy would necessitate FAA review and likely result in objections from airlines as well as the FAA. STLAA was particularly concerned that either excavation alternative would take years to perform.

The EPA asked whether the airport's concerns would be alleviated by excavation of only Area 2 (outside the 10,000-foot range). The response was no, the entire area is within the Restrictive Covenant and subject to FAA review if "new landfilling operations" were to occur. In particular, STLAA explained that construction of an on-site disposal cell would not qualify as an expansion or change to an existing landfill because the Bridgeton Sanitary Landfill was already in closure mode, but would instead constitute "new operations" at the site and therefore would trigger FAA review. STLAA could not predict the changes that any excavation activities would cause to the migratory patterns of birds and could not take the risk that such changes would increase the local bird population.

STLAA stated that its 2006 letter, submitted during the public comment period on the ROD for Operable Unit 1, still reflected its position.

Notes of this 2010 meeting were provided to the EPA and are included in Appendix A.

By letter dated September 20, 2010, (Appendix A), the city of St. Louis Airport Authority provided written comments on the SFS Work Plan. The letter identified the West Lake Landfill as a hazardous wildlife attractant for the airport. The city stated that the excavation ("complete rad removal") alternatives would adversely affect wildlife mitigation measures taken by the airport to protect aircraft from bird strikes, thereby placing the city in violation of the FAA ROD requiring that such mitigation efforts be undertaken and maintained. The city also stated that implementation of the excavation alternatives would violate the Restrictive Covenant. The city specifically identified creation of an on-site engineered disposal cell as a direct violation of paragraph 1 of the Restrictive Covenant. The city further indicated that the proposed location for the on-site engineered disposal cell would be approximately 8,000 feet from the airport and is incompatible with state and federal regulations that prohibit placement of a new solid waste disposal site within a 10,000-foot radius of an active runway.

8. Section 3.4, first paragraph, page 75: This section still refers to the uranium cleanup level as "50 pCi/g plus background" despite a comment on the draft SFS report (additional comment 40) requesting that this cleanup level be expressed as a single concentration which includes background. This change must be made throughout the document. In addition, the reference to section 2.1.2 of the SLAPS ROD is incorrect; the correct reference appears to be section 2.8.2.1.

9. Section 5.2.1.1.2, page 109: This section states "... implementation of the ROD-selected remedy without performing any waste regarding (cutting) is not considered feasible" without discussing the reasons for this determination. This section must briefly summarize the reasons and limitations that led to this determination.

10. Section 5.2.1.1.3, page 112: The negative easement may apply to the "management of materials during recontouring" and this section should either state that it may apply or explain why it would not.

11. Section 5.2.1.3, fourth paragraph, page 114: This section states that the ROD-specified cover design would have sufficient thickness and characteristics to be protective against gamma radiation and radon emissions and references Appendix F for the calculations behind this statement. Appendix F calculates radon fluxes but does not appear to quantitatively assess gamma shielding. Section 6.2.1.1, second paragraph, states that the two feet of clay proposed for the cap would provide gamma radiation shielding but does not provide any calculations to support this statement. Gamma shielding calculations must be added to Appendix F.

12. Section 5.2.2.1, last sentence, page 123: Financial assurance would need to be provided in perpetuity. Delete the reference to a "Consent Decree."

13. Section 5.3.2.12, last paragraph, page 134: See comment 12 above.

14. Section 6.2.2.5.1, page 191: The EPA provided feedback on this section in response to a comment on the draft SFS report (specific comment 33) requesting that text be inserted in this section to justify excluding risks from loose RIM released during truck and rail transport. The requested text was not included in the final SFS and must be included.

15. Figure 2: The EPA previously commented on Figure 3 of the draft SFS report asking for adjacent agricultural land and nearby residential areas to be labeled. In the final SFS report, Figure 2 has the trailer park and Spanish Village labeled but does not include a label for the agricultural/residential property south of the on-site storm water pond. This property must be labeled on the figure.

16. Figure 4: The contour intervals and contour elevations are missing or too small to be readable on this figure. The figure should be made larger so this information is readable.

17. Figure 35: The contour intervals and contour elevations are missing or too small to be readable on this figure. The figure should be made larger so this information is readable.

18. Appendix B, section 3, page 4: In the second-to-last paragraph, the second sentence must make it clear that the results being discussed apply to Area 2.

19. Appendix B, table 5: The apparently erroneous result of 4.4 billion pCi/g for boring PVC-21 has not been corrected as requested in the EPA additional comment 47 on the draft SFS report. This must be corrected.

20. Appendix G, section 3.1: This section must briefly describe how the baseline gamma radiation monitoring mentioned here will be conducted.

21. Appendix H, section 10: The EPA's Risk Assessment comment 36 on the draft SFS report (pertaining to Risk Assessment section 9.3.5) requested that this section evaluate risks due to exposure to RIM which may fall from trucks during transport. Your response to the EPA's specific comment 33 on the draft SFS report provided a justification for excluding these risks from the risk assessment, and this justification should be included here.

Please submit the changed pages required by the corrections above within fifteen (15) days of your receipt of this letter. If you have any questions, you may contact me at (913) 551-7324.

Sincerely,

Daniel R. Gravatt  
Remedial Project Manager  
Missouri/Kansas Remedial Branch  
Superfund Division

cc: Mr. Shawn Muenks, Project Manager, Missouri Department of Natural Resources  
Ms. Victoria Warren, Facility Representative, Republic Services  
Mr. Doug Ammon, Branch Chief, EPA Headquarters (email only)  
Ms. Charlotte Neitzel, Attorney, Holme Roberts & Owen (email only)  
Ms. Christina Richmond, Attorney, U.S. DOJ for US DOE (email only)  
Ms. Kate Whitby, Attorney, Spencer Fane Britt & Browne (email only)  
Mr. Bill Beck, Attorney, Lathrop & Gage (email only)

bcc: Audrey Asher, CNSL

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Principal Engineer and President  
Engineering Management Support, Inc.  
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